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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,624	11/19/2001	Fen Hiew	14428.01US3	5806

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EXAMINER	
FERRIS III, FRED O	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/992,624	HIEW ET AL.	
	Examiner	Art Unit	
	Fred Ferris	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 Novembr 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 November 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/14/03, 2/20/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-40 have been presented for examination based on applicant's disclosure filed 19 November 2001. Claims 1-40 have been rejected by the examiner.

Drawings

2. Applicant's drawings submitted on 1 November 2002 are informal and acceptable for examination purposes only. New formal drawings will be required when the case is placed in condition for allowance.

Priority

3. Applicant's claim for priority based on provisional applications 60/270,950 - 02/23/2001, and 60/293,854 - 05/25/2001 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent 6,851,107 issued to Coad et al.

Independent claim 1 is drawn to:

A development environment comprising:

- document manager retrieving source code;
- editor for displaying and editing retrieved source code;
- parser layer detecting retrieved source code language, activating rules and logic applicable to language;
- visualizer dynamically linked to editor for graphically displaying representations flows within source code using the rules and logic activated by parser,

where the editor, parser, and visualizer cooperate such that edits to source code are automatically reflected in visualizer graphical flows and edits made to graphical flows are automatically reflected in editor source code.

Regarding independent claims 1 and 18: Coad teaches a software development tool (development environment) where a developer (user) can simultaneously view a graphical representation and a text representation of source code (Abstract, Fig. 2). These graphical and textural views are synchronized (i.e. dynamically linked) such that modifications to one view are automatically reflected in the other view (CL4-L61 to CL-L3). (i.e. edits to the graphical flow are automatically reflected in the source code (text) view and visa versa) Coad further discloses the ability to detect the particular language of the source code (CL2-L58) and applying rules (Tables 1-17) and logic via a parser (CL5-L51-55, Fig. 7). The development tool disclosed by Coad further discloses an editor for displaying and editing retrieved source code (CL4-L57-60, Fig. 2) and a synchronized (i.e. dynamically linked) viewer (visualizer) for displaying graphical representations of flows within the source code (CL16-L57 to CL17-L47, Figs. 11-17). The examiner notes that applicants claimed "visualizer" is merely disclosed to be a software tool that reads the code and generates diagrams and graphical representation of the program flow, data flow or the logic of the code, (specification: page 3, lines 20-22) and is hence interpreted to be functionally equivalent to the ICE editor teachings of Coad noted above. Hence, Coad clearly anticipates the claimed limitations of independent claims 1 and 18.

Per claims 2-3, 19-20, 25: Coad teaches graphical representations of program flows where edits to the graphical flow are automatically reflected in the source code (text) view and visa versa as noted above. (Abstract, Figs. 13-18)

Per claims 5-12, 22-24, 35-36, 38-40: The ICE editor disclosed inherently provides features relating to document manager and template manages (CL4-L58, Fig. 2) including data selection, inspection, and discovery functions. Coad further teaches a data manipulation language. (CL15-L58 to CL16-L25) Further, the processing system disclosed by Coad includes Internet access (CL5-L31-49) for retrieving and executing source code from remote computers.

Per claims 13-17, 26-29, 33-34, 37: Coad teaches changing the appearance of the graphical view based on source code error detection within certain segments (Tables 10-17, Fig. 8a) and displaying debugging tips (i.e. hints) during the debugging audit process (Figs. 8b & 8c) for different types of errors (Tables 10-17).

Per claims 30-32: Coad teaches the use of templates (CL15-L58 to CL16-L26, CL16-L46-57, Figs. 9, 11) on source code from a user selectable library.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,851,107 issued to Coad et al in view of U.S. Patent 6,356,285 issued to Burkwald et al.

Per claims 4 and 21: The limitations of independent claims 1 and 18 relating to simultaneously viewing edited changes to a graphical representation and a text representation of source code are anticipated by Coad as previously noted above.

However, Coad does not explicitly disclose features relating to expanding and collapsing the displayed graphical representation of the source code flow.

Burkwald teaches an software analysis tool where the user can expand or collapse the displayed graphical representation of the source code flow (CL14-L49-67, Figs. 6-8)

It would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the teachings of Coad relating to automatically viewing edited changes to a graphical representation and a text representation of source code, with the teachings of Burkwald relating to expanding and collapsing the displayed graphical representation of the source code flow, to realize the elements of the claimed invention. An obvious motivation exists since, in this case, the Coad reference teaches to the Burkwald reference, and the Burkwald reference teaches to the Coad reference. Specifically, both Coad and Burkwald teach analyzing source code by visualization and are used in the same technological arena as noted above. Coad teaches to Burkwald because Coad teaches techniques simultaneously viewing edited changes to a graphical representation of source code (See: Coad, Summary of

Invention). Burkwald teaches to Coad because Burkwald specifically teaches expanding and collapsing the graphical representation of the source code. (See: Burkwald: CL14-L49-67, Figs. 6-8) Further, the level of skill required by an artisan to realize the claimed limitations of the present invention is clearly established by both references. (See: Coad/Burkwald, Background/Abstract) Accordingly, a skilled artisan having access to the teachings of Coad and Burkwald, would have knowingly modified the teachings of Coad with the teachings of Burkwald (or visa versa) to realize the claimed elements of the present invention while reducing the cost and development time.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application 2003/0056192 issued to Burgess et al teaches a software development visualization tool with source code graphical representation.

U.S. Patent Application 2002/0097253 issued to Charisius et al teaches a software development visualization tool with source code graphical representation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry

of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached at 571-272-3780. The Official Fax Number is: (703) 872-9306

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